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TEMPORARY DRAFT

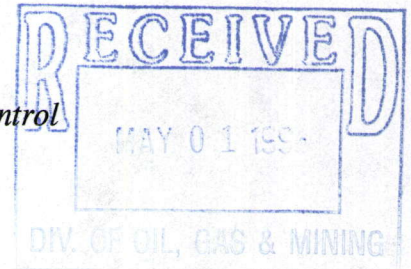
TEMPORARY DRAFT

DRUM MINE CHRONOLOGY

Division of Water Quality/Bureau of Water Pollution Control

May 1, 1996

(Design Evaluation Section file)



- 10-4-83 BWPC construction permit to Western States Mining Co. (WSMC) for 3 heap leach pads, estimated project duration 26-30 months.
- 3-16-84 BWPC construction permit to WSMC for low-grade leach pad with leak detection system.
- 2-2-88 BWPC inspection of Drum Mine site; discovery of 6 leach pads constructed without a permit.
- 4-27-88 BWPC notifies WSMC of unpermitted leach pads, no further construction allowed.
- 7-7-88 WSMC report on leach pad construction and performance.
- 7-21-88 BWPC letter to Jumbo Mining Co. Informs Jumbo of unpermitted pads, and that leaching may only be done on authorized pads.
- 8-11-88 BWPC letter to WSMC requesting information on leach pads.
- 8-19-88 Letter from SRK, consultants for WSMC, giving condition and description of existing pads, with opinion that original design criteria had been achieved.
- 9-23-88 NOV issued by BWPC:
1. Stop loading ore on unauthorized pads.
 2. Stop leaching on unauthorized pads.
 3. Stop loading ore on permitted pads by 12-1-88.
 4. Stop leaching on permitted pads by 10-1-90.
 5. Begin decommissioning all pads 10-1-90.
- 9-28-88 Response from WSMC and notification of sale to Jumbo.

TEMPORARY DRAFT

TEMPORARY DRAFT

- 10-21-88 Letter from Jumbo to BWPC asking permission to use Pads 5-6; stacking ore on permitted pads only.
- 12-14-88 Letter from BWPC to Jumbo giving conditions for further use of permitted pads.
- 2-2-89 Letter from Jumbo to BWPC responding to 12-14-88 letter and asking extension of leaching to 12-1-92, crushing and re-stacking of ore to depths over 40 feet, and use of unauthorized pads.
- 3-16-89 Letter from BWPC to Jumbo denying requests of 2-2-89 letter, and stating that Jumbo had been notified of restrictions on facilities prior to purchase.
- 3-30-89 BWPC authorization to operate pads 1, 2, 3, 4 and 5.
- 4-5-89 BWPC inspection report memo.
- 8-7-89 Request to reconsider 10-1-90 end of leaching, use of unpermitted pads and stacking ore over 40 feet deep.
- 8-23-89 Letter from Jumbo to BWPC Design Evaluation giving technical reasons to allow leaching.
- 8-24-89 BWPC letter to Jumbo with comments on 8-7-89 letter. More information needed on liner integrity for BWPC approval.
- 9-11-89 Jumbo letter to BWPC asking again to use unpermitted heaps, questioning definition of "waters of the state", asserting integrity of liners, suggesting there would be no impact to ground water even if there was a catastrophic release.
- 9-12-89 Meeting with BWPC, Jumbo, WSMC.
- 9-26-89 Jumbo asks again to use unpermitted heaps.
- 9-27-89 Letter from BWPC to Jumbo giving conditions for extending 10-1-90 deadline: ground water permit may be required, Jumbo must demonstrate pad integrity, leak detection system performance, ground water depth and quality.
- 10-24-89 Letter from BWPC to Jumbo authorizing use of pads 2 and 7 for 60-day test, neutron-gamma logs in nearby drill holes to be used for assessing leakage.

TEMPORARY DRAFT

TEMPORARY DRAFT

- 10-25-89 BWPC response to 9-26-89 letter: old construction permits did not authorize unpermitted pads; possibility of using unpermitted pads beyond 1990.
- 11-13-89 BWPC approval of evaluation of leach pads done by J.M. Montgomery; Jumbo must evaluate ability of materials under pad to support increased height of ore.
- 11-27-89 BWPC approval of 60-day leach pad test with conditions for diversion of surface runoff, neutralization plan, neutron-gamma logs before and after test, no new ore to be loaded on pads.
- 1-8-90 BWPC response to 12-15-89 fax: 60 day test must be continuous.
- 1-9-90 Letter from King questioning revisions to neutralization plan requested in 11-27-89 letter.
- 2-27-90 NOI from Jumbo to DOGM
- 3-12-90 BWPC letter to Jumbo responding to 2-27-90 letter, asking for more details on proposal to process ore on existing pads.
- 3-15-90 BWPC letter to Jumbo giving neutralization criteria for pads 1-5; stating that criteria for pads LG 2 and 7 may be different.
- 3-15-90 Letter from Jumbo to BWPC responding to 3-12-90 letter; requesting to extend use of permitted heaps beyond 10-1-90.
- 3-20-90 Letter from Jumbo to BWPC responding to 3-15 letter; request to raise neutralization pH from 7.5 to 8.5.
- 3-28-90 BWPC inspection of minesite; cyanide contamination in perched aquifer revealed; need to re-log test holes because of winter snow melt.
- 4-27-90 BWPC letter to Jumbo requesting information on cyanide contamination.
- 5-10-90 BWPC letter to Jumbo requesting information on flood diversions before 60-day test.
- 5-17-90 BWPC letter to Jumbo approving neutralization pH of 8.5; requesting data on number and spacing of tests.

TEMPORARY DRAFT

TEMPORARY DRAFT

- 5-31-90 Letter from Jumbo to BWPC; sampling proposal for leach pad neutralization.
- 5-31-90 Letter from DOGM to Jumbo; no approval of 60-day test without permission from WSMC.
- 6-4-90 BWPC certified letter to Jumbo; had not received requested information on ground water contamination; submit before 6-14-90.
- 6-22-90 Letter from Jumbo to BWPC; Jumbo offers to provide reclamation bond to DOGM to proceed with test; request 2-year extension for operating heaps 1, 2, and 3; propose additional testing to verify integrity of heaps 4-5.
- 7-2-90 BWPC response to 6-1-90 submission of data; asks for monitoring holes and data on ground water contamination; denies use of pads past 10-1-90; requests Jumbo to advise BWPC if and when 60-day test starts.
- 8-15-90 BWPC inspection of minesite.
- 8-24-90 Letter from Jumbo's attorneys to WSMC's attorneys: Jumbo will not accept responsibility for top soil deficiencies.
- 9-7-90 Letter from BWPC to Jumbo; list of conditions and design specifications if new pads are built.
- 9-7-90 Letter from Jumbo to BWPC; request to extend test leach to mid-Dec. 1990.
- 9-11-90 BWPC approval of flood diversions for pads 2 and 7.
- 9-17-90 BWPC denies request for test leaching past 10-1-90.

(Ground Water section file)

- 12-6-90 Receipt of ground water discharge permit application.
- 1-10-91 BWPC review of ground water permit application; list of deficiencies.
- 3-25-91 BWPC review of amended ground water application; requirement for investigation into existing ground water pollution.

TEMPORARY DRAFT

TEMPORARY DRAFT

- 6-24-91 Letter from BWPC to Jumbo; draft ground water permit will be prepared; request plan and timetable to clean up contaminated ground water.
- 7-8-91 DWQ (BWPC) letter to WSMC; WSMC is a potentially responsible party in ground water contamination; request statement explaining WSMC's responsibility for contamination.
- 7-22-91 DWQ sends draft ground water discharge permit to Jumbo.
- 7-18-91 WSMC attorney's statement to DWQ: Drum Mine was not an "existing facility" (?) when sold to Jumbo; ground water monitoring data was available to Jumbo at time of sale; no information in their file stating WSMC was responsible for pollution.
- 8-16-91 DWQ requests Jumbo to voluntarily clean up ground water; threatens enforcement action.
- 9-25-91 DWQ requests additional information on Jumbo's proposed cleanup plan.
- 1-7-92 Letter from DWQ to Jumbo; draft permit is ready but Jumbo must obtain construction permit before it is issued.

(No more items in GW file till 1994; following from Design Evaluation file)

- 2-20-92 DWQ informs Jumbo that process water ponds must be reconstructed and permits amended; approval to use existing liner as bottom liner in triple-liner design.
- 3-4-92 DWQ denies Jumbo's request to use process water ponds without reconstruction.
- 5-8-92 Tetra Tech consultants for Jumbo submits liner designs for pads and ponds.
- 5-13-92 DWQ letter to Tetra Tech giving construction standards for ponds and leach pads.
- 6-23-92 DWQ review of liner designs.
- 7-9-92 DWQ review of construction QA/QC plan.

TEMPORARY DRAFT

TEMPORARY DRAFT

- 3-17-93 Letter from Jumbo Consultant Evert Lawton to DWQ requesting clarification on design standards and related material.
- 5-6-93 DWQ memo on meeting with Lawton and Tetra Tech to answer design questions. DWQ expects a submittal in 60-90 days.

(Ground Water file)

- 5-4-94 Depositions from Attorney General to be reviewed DWQ.
- 3-10-95 BLM notice to Jumbo of failure to reclaim and prevent undue and unnecessary degradation at Drum Mine; request modified POO to address reclamation.
- 3-17-95 Jumbo response to BLM 3-10-95 letter: no water which fits the definition of "ground water" is present at mine site; Jumbo believes there is no hazard to the environment.
- 3-20-95 DWQ memo on joint agency inspection of Drum Mine; observations of deterioration of pipelines and liners.
- 4-3-95 Letter from BLM to Jumbo; list of Items examined at inspection. Item No. 7 relates to ground water contamination; Jumbo must contact BLM, DOGM, and DWQ about this by 4-10-95.
- 4-3-95 Letter from Lawton to DWQ; preliminary drawings to be completed soon.
- 4-10-95 Jumbo's response to BLM 4-3-95 letter: legal responsibility for remediation not established; Jumbo does not believe it is urgent.
- 5-26-95 Jumbo plan for perched aquifer sampling.
- 6-15-95 Letter from DWQ to Jumbo: perched aquifer contamination indicative of releases to deep aquifer; request plan and timetable for stopping discharge from pads.
- 10-10-95 Letter from Jumbo to DWQ: perched aquifer does not meet legal definition of "ground water"; contamination not serious; no need for further remediation; contamination was entirely WSMC's responsibility.

TEMPORARY DRAFT

TEMPORARY DRAFT

- 12-20-95 Meeting with Lawton, Hartshorn and DWQ to discuss design and permitting of new pads.
- 1-18-96 Letter from DWQ to Jumbo: permit requirements for resuming mining operations; permit application must have plan for stopping discharges from existing pads; Jumbo must submit a permit application within 90 days or a plan for stopping the existing discharge within 30 days.
- 3-29-96 Jumbo response to DWQ 1-18-96 letter: request 90-day extension fro permit application; Jumbo claims no remediation is needed for heaps because of low levels of WAD cyanide; proposal to sample runoff from heaps after the next rain.

dwqchrn.jmc (DOGM H:directory)